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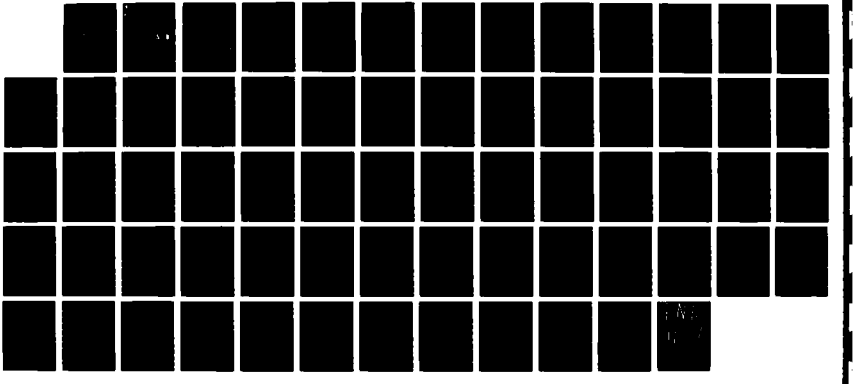

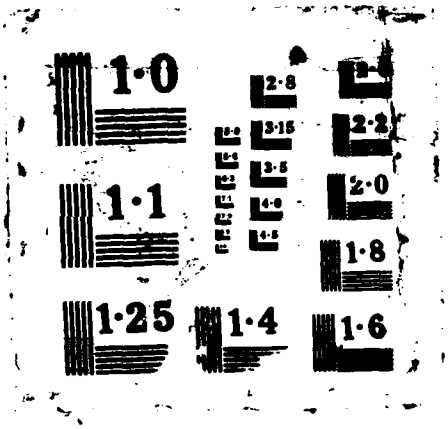
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Abstract

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A DESCRIPTIVE STUDY OF
THE EMERGENCE OF ELECTRONIC MONITORING
AND ITS UTILIZATION WITHIN THE CRIMINAL
JUSTICE SYSTEM

by

David Keaton Pelaez

Statement of Problem

This thesis is a descriptive study of the emergence of a new technology. This examination deals with early experimentation of electronic monitoring devices within the behavioral sciences setting, and traces its development and use up to the current period. Environmental factors which have helped electronic monitoring shift from an experimental model to a working tool within corrections are also examined. Following a review of the available literature, issues and controversies surrounding electronic monitoring are explored.

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The data utilized in this study was obtained through two primary sources. The first was a literature review in which numerous sources where considered in order to trace the emergence and development of electronic monitoring within the United States. Secondly, legislation was examined in order to support thesis arguments.

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Based on the results of the review of the literature and legislation, two conclusions were reached. First, the use of electronic monitoring will probably increase the efficiency of the corrections system employing it. This efficiency may increase prison and jail populations. Secondly, this new technology will continue to grow within the field of corrections, and risks can be expected, since many new programs are coming on-line before any scientific study on electronic monitoring can be conducted and evaluated. Administrators responsible for implementing new programs using this new technology can benefit by being familiar with the issues, controversies, and legal implications of the application of electronic monitoring.

Committee Chair's Signature of Approval Thomas R. Phelps

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A DESCRIPTIVE STUDY OF THE EMERGENCE OF ELECTRONIC MONITORING AND ITS UTILIZATION WITHIN THE CRIMINAL JUSTICE SYSTEM

David K. Pelaez
B.A., Florida Technological University, 1978

THESIS

Submitted in partial satisfaction of
the requirements for the degree of

MASTER OF SCIENCE

in

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at

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Summer
1987

A DESCRIPTIVE STUDY OF THE EMERGENCE OF ELECTRONIC MONITORING AND ITS UTILIZATION WITHIN THE CRIMINAL JUSTICE SYSTEM

A Thesis

by

David Keaton Pelaez

Approved by:

_____ ,Chair
Thomas R. Phelps

_____ ,Second Reader
Brian P. Parker

Date: 17 JULY 1987

Name of Student: David Keaton Pelaez

I certify that this student has met the requirements for format contained in the Manual of Instructions for the Preparation and Submission of the Master's Thesis or Master's Project, and that this thesis or project is suitable for shelving in the Library and credit is to be awarded for the thesis or project.

Thomas R. Phelps, Graduate Coordinator — Date 17 July 1987

Department of Criminal Justice

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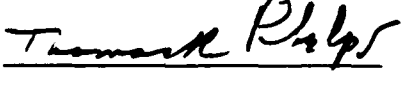
Committee Chair's Signature of Approval 

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DEDICATION

To Theresa, without whose encouragement, inspiration, and caring this study could not have been completed.

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It is a pleasure to thank Dr. Thomas R. Phelps for his patient and wise counsel during the time this study was being completed. I am also indebted to Dr. Brian P. Parker for his encouragement and suggestions.

CHAPTER ONE

INTRODUCTION

Within the past ten years, many states throughout the country have been feeling the effects of growing prisoner populations. Not unique to other states, California has experienced an unprecedented inmate population growth. As reported to the California's Joint Legislative Budget Committee regarding new prison construction, it was noted that:

> At the beginning of the construction program in 1981, the prison system was operating at 112% of its design capacity. Recent projections of the inmate population show that by 1991 the inmate population will exceed by 44,000 the design capacity of the expanded prison system. Thus, giving existing trends and policies, the prison system will be operating at about 186% of its design capacity-far worse than when the building program began.[1]

Many other states are experiencing this same kind of problem. Municipalities are thus strongly motivated to explore ways to alleviate this criminal justice crisis. Intensive probation supervision and the utilization of "house arrest" have been established in many municipalities as ways to help decrease this jail and prison population explosion. The increase in the number of new intensive supervision probation programs, within the past few years, has been phenomenal. Within the recently published book, Intermediate Punishments: Intensive Supervision, Home Confinement and Electronic Sur-

veillance, the flurry of activity of many municipalities to start intensive supervision probation programs is shown:

> Intensive supervision has taken the country by storm in the middle third of the 1980's. It seems that just about every probation agency either has an intensive program, is planning for one, or is seeking funds to implement a "new" approach to be called intensive. The pressure for intensive probation is so wide-spread that no administrator can call his organization's panoply of probation methods complete without it. The chorus of approval for intensive probation is so strong and seemingly uniform that we are all tempted to call it "the new panacea of corrections."[2]

Additionally, house arrest programs have become more popular, as nationwide prison overcrowding puts more stress on an already overburdened criminal justice system. Joan Petersila, senior researcher for the Rand Corporation explains:

> House arrest programs are beginning to spread not only in the federal system but in state and local corrections as well. A recent survey of "Innovations in Probation" shows that several states—including Oklahoma, Alabama Connecticut, Delaware, Indiana, Georgia Texas an South Carolina—currently operate state-run home detention programs. Similar programs exist at the county level in several others. In total, 30 states are implementing some form of house arrest program, and a dozen or more are planning programs to be implemented in the next year.[3]

Increased case loads within many probation and prisoner release programs have helped spur on a search for more efficient means to handle larger amounts of these kinds of offenders. Offenders who are participating in an intensive supervision probation program or a house arrest program must

be monitored to insure that they are following the schedule the authorities have given them. Simply stated, an accurate accounting of when the offender enters and leaves his home helps the officer in determining if the offender is following the prescribed schedule. Although not the answer to prison overcrowding, electronic monitoring is now being considered by many states as a means to more efficiently monitor the increasing number of certain offenders now participating in other-than-prison-programs.

What is electronic monitoring? As explained by Charles M. Freil and Joseph B. Vaughn, there are three different meanings attached to electronic monitoring. Electronic monitoring includes:

1. The use of a conventional telephone to call the probationer during curfew hours to determine whether she or he is at home.[4]

2. A computer which automatically dials the probationer's telephone and receives voice and/or electronic identification.[5]

3. Systems wherein the probationer wears a transmitting device which sends a radio signal to a receiver attached to the probationer's phone which can communicate with a computer.[6]

A fourth kind of electronic monitor that is currently available, but not in widespread use, is a device that can detect drug and alcohol use.[7] A similar device has been designed to deny access to an automobile to someone who may be intoxicated.[8]

Limitations of Study

The focus of this study will be limited to electronic monitoring devices as described in number two and three of the Freil and Vaughn definitions. It is these types of systems that have recently proliferated in intensive supervision and house arrest programs throughout the United States.

The use of electronic monitoring devices (EMD) has been a relatively recent phenomenon within the corrections setting So new is this tool within the area of corrections that much of the data regarding reliability and cost/benefits in the employment of EMD has not been collected. Given time, systems now in use across the country will help determine the future direction of EMD within the criminal justice arena. Until then, programs now employing EMD will probably suffer similar growing pains in the utilization of this new technology.

Statement of the Problem

Although initial programs have begun to share information through the National Institute of Justice and other fo-

rums, companies manufacturing EMD and agencies employing these devices are admittedly "new at the game." Current trends with the development and employment of these devices are breaking unexplored ground. As a working tool within corrections, electronic monitoring is still in its infancy. Within the corrections environment, it has been in an active setting for less than five years. This study will consolidate much of the available literature within this growing area to reduce the information void currently existing in the criminal justice literature.

This paper is a descriptive study of the emergence of a new technology. It will examine this "ground floor" phenomenon as it applies to the criminal justice field. The first part of chapter two will examine early experimentation of EMD within the behavioral sciences setting, and will trace its development and use up to the current period. The second part of this chapter will examine environmental factors that has helped EMD shift from an experimental model to a working tool in corrections. Following a review of the available literature, chapter three will examine the issues and controversies surrounding EMD as a working tool. Chapter four will include conclusions and recommendations for future research within the field of corrections in the employment of EMD.

With other technologies, what was science fiction thirty years ago has now become scientific fact. Within this same framework, the merging and application of several different

technologies have matured and now appear to be a viable part of the criminal justice system. Electronic monitoring's application will probably occupy a permanent place within this system, and to get a first-hand look at this developing issue is both exciting and timely.

CHAPTER ONE

NOTES

[1] State of California, The 1987-88 Budget: Perspectives and Issues, Report of The Legislative Analyst to the Joint Legislation Budget Committee, (Sacramento: California Office of State Printing, 1986) , 139

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[3] Joan Petersila, "Exploring the Option of House Arrest," Federal Probation 50 no. 2 (1986), 50.

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[6] Freil, 4.

[7] Deborah Blum, "Science Helps Extend Reach of the Long Arm of the Law," The Sacramento Bee, 17 Feb. 1987, A1.

[8] "Drunkproofing Automobiles," Time, 6 April 1987: 37.

CHAPTER TWO

HISTORICAL OVERVIEW OF THE EMERGENCE OF ELECTRONIC MONITORING

The purpose of this chapter is to plot the development and implementation of electronic monitoring devices within the corrections system. This historical overview is broken down into two parts. The first part of this chapter will be an examination of what had driven early developers to experiment with EMD, and will trace EMD's use and development to its current role within corrections. The second part of this chapter will look at three environmental factors that has helped establish EMD as a working tool within corrections.

The Development of Electronic Monitoring

In the early 1960's, Dr. Ralph Schwitzgebel and others were examining the potential use of radio-telemetry as a system to monitor patients. Through experiments conducted by the Science Committee on Psychological Experimentation at Cambridge, a "small" portable transmitter was being tested on subjects to determine the usefulness and potential future employment of similar devices in other behavioral science areas.[1] During the time period of this experiment, an electronics revolution had begun, due to the increased use of a then-new technological development, the transistor. Due to the advent of the transistor replacing the vacuum tube, tran-

sistorized circuitry became a reality in the early 1960's. This technological breakthrough helped reduce the size of electronic devices, earlier dependent on large vacuum tubes and heavy power supplies needed for their operation. Transistors, infinitely smaller and lighter in weight, could be employed in circuitry that would take up a fraction of the room and power needed for vacuum tube devices. Transistorized radio telemetry devices used for behavioral experimentation were employed in the early experiments at Cambridge. It was the down-sizing of these electronic components that allowed for the consideration of the use of electronic monitoring devices within the field of medicine and the behavioral sciences. Dr. Schwitzgebel described these devices used in the Cambridge experiments:

> As the system presently operates in its simple prototype form, a participating person wears two small units, approximately 6 inches by 3 inches by 1 inch in size, weighing together about two pounds. The equipment is quite unobtrusive and permits many of the daily usual activities. As the wearer walks through a specified monitored area, his transceiver activates various repeater stations which then retransmit his signal, with a special location code, to the base station.[2]

The two pound transceiver worn by the participant was far different from the latest techniques of micro-miniaturization. But during this time period, the solid-state devices used in this experiment was state-of-the-art, and compared to the antiquated vacuum tube, these experimental telemetry devices were thought of as being quite small. Because of the added convenience of miniaturization, these electronic de-

vices were now being considered as a possible future behavioral sciences tool, and experimentation with these devices began. Dr. Schwitzgebel noted, in a 1964 article appearing in Behavioral Science that:

> The objective recording of a behavior over an extended period of time can provide the therapist with a long range perspective which would be useful in selecting and evaluating various treatment procedures. Daily or weekly inspection of behavior records could supplement long-term evaluation studies. Frequent inspection may reveal cyclical trends or periodic dysfunctions often obscured by usual sampling techniques or single-inspection followup studies.[3]

By using these telemetry devices, it became possible to obtain an "objective recording" of behavior on a mobile subject without having to physically follow his/her every move.

Dr. Schwitzgebel explained in a later article that these devices could also supply specialized typed of data:

> The primary purpose of the systems is to facilitate medical and therapeutic aid to patients. One system is now being developed to effect the rescue of persons subject to emergency medical conditions that might preclude their calling for help, such as acute cardiac infarction, epilepsy or diabetes.[4]

Although the devices utilized within the early experiments had vastly different operating parameters and dissimilar specifications as compared with today's EMD, the basic theory of operation contained some similarities of the present-day electronic monitoring device. The early concept of reporting the subject's whereabouts through the use of a transmitter (worn by the subject) follows a reasonably close

description of how today's devices perform. In an article appearing in the Harvard Law Review, Dr. Schwitzgebel brought the idea of merging EMD with corrections to the forefront.. . he expressed his idea in the form of EMD's hypothetical use that has now proven to be unusually accurate. He stated:

> "Another use of tracking would involve those released on parole or probation or sentenced to treatment not involving full separation from society."[5]

Additionally, Dr. Schwitzgebel noted that:

> "Requiring the wearing of a tracking device as a condition of parole or probation would permit parole officers to know whether their charges were obeying conditions of release."[6]

From the perspective of the middle 1960's, much of the primary concern centered around the notion of therapy and rehabilitation for the offender. This direction is noted upon examination of research involving EMD within this period. The crossover from the early medical and therapeutic Cambridge experiments with EMD to Dr. Schwitzgebel's discussion suggesting the use of EMD in corrections appeared to be closely interconnected because of this commonality.

The real importance of early attempts at incorporating EMD within a behavioral sciences framework, is the fact that this was the first time the concept of electronic monitoring was brought to issue. Many years passed before the emergence of a workable concept in which EMD could play an important role in the monitoring of offenders participating in non-institutional programs. Most curious is the fact that the

experimentation which had taken place in the early and middle 1960's never directly catalyzed any successful efforts to create EMD for actual implementation in corrections. A period of almost seventeen years separated the experimental use of EMD at Cambridge from the first working model incorporated within an actual corrections setting.

Although the technology was available, and rudimentary experiments had been conducted involving early forms of electronic monitoring, no one had attempted to integrate the available technology into a system for monitoring persons undergoing home confinement.

The concept of using electronic monitors to supervise offenders in their homes can be credited to the Honorable Jack Love. In the early 1970's, he attempted to interest several large computer companies in building a device that might be used for voice recognition, so offenders on work release programs could be identified over the telephone in order to insure that they were at home as required by the court. No company wanted to invest the time or money in this project.[7] Jack Love, who had experience as a Federal Public Defender and an Assistant District Attorney, had also spent five years as a Judge in New Mexico. His intimate knowledge of the supervisory problems associated with monitoring "hard-core" offenders who might influence less sophisticated inmates motivated him in searching for alternate punishments for the less serious offender.[8] In his search for a system to

separate the less serious offender from the prison environment, he developed several ideas that accelerated his search for a firm that might ultimately produce the first working electronic monitoring system. Judge Love took note of the devices libraries were using in order to prevent people from removing a book from the library. He was also aware of existing electronic devices that could automatically identify cattle by means of an implant.[9] The idea that was the real imputus to create a workable EMD system, came from Judge Love's partial viewing of a Spiderman cartoon. In this cartoon, Spiderman fell victim to a villain who had attached a bracelet to his wrist. The villain could then commit crimes and identify the location of Spiderman during this time period.[10] After viewing this cartoon, Judge Love thought that a bracelet could possibly be developed that could report to the authorities a house arrestee's unauthorized absence.[11]

Involved in sentencing offenders to work release programs, Judge Love found it disturbing that there was a very large backlog of persons who were eligible for the work release program.[12] This backlog prompted him to commence a search for companies interested in developing monitoring systems. In a journal article entitled "Electronic Monitors: How it All Began," Francis Timko explained the next step Judge Love initiated in seeking support:

> He again approached the major computer companies but no company was willing to commit a research and development project to it. He then decided to arrange for the research and development independently. Michael Goss was with one such com-

puter company and he had pushed the concept internally with success until it reached the higher echelons. When he delivered the company's formal reply, to the judge, he stated that he would like to commit his energies to the research and development of the concept. At that point, their alliance was formed. Michael Goss then left that company and he formed Nimcos with $100,000 of investor's money and the dream of having a working model.[13]

A working model was created only after the exploration of many different technologies, costing Nimcos over five hundred thousand dollars in research and development efforts.[14]

As reported by Francis Timko, research and development was not the only barrier:

> Judge Love then ran into difficulty with the legal system in New Mexico and the new technology was challenged in the state's supreme court. It was then claimed that he should have submitted the idea to his judicial peers first. Another objection was that part of the sentencing could not be based on the premise of the offender's ability to rent the control or have a phone and that the judge could not enter into a contract with Mr. Goss. Since there were only a few devices in existence and this was strictly a concept development project, the cost objection and the others were solved and the project moved on.[15]

After additional testing of the reliability of the system, in 1982 New Mexico became the first state to try EMD as an innovation within the field of corrections. An appraisal was later conducted by the National Institute of Justice to determine whether the system met its original goals. Findings of the appraisal are the following:

1. The equipment operated successfully.

2. Monitored home confinement appeared to be acceptable to the local criminal justice community.
3. The concept did not appear to pose legal problems when used as an alternative to detention.
4. As compared to detention, monitoring resulted in "substantial savings" to the criminal justice system.[16]

As of December, 1986 there was more than 45 EMD programs in operation in at least 20 states.[17] The National Institute of Justice indicates that the following states are involved in programs involving EMD's use. Those states are: Arizona, California, Colorado, Florida, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Missouri, Nebraska, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Tennessee, Utah and Virginia. These EMD programs encompass probation, parole, pre-trial release, and work-release programs throughout the country.[18] Due to the widening number of agencies adopting this new technology, the public and the administrators who are unfamiliar with EMD may carry preconceived notions on what exactly EMD can and cannot do. One of the best ways to educate people to this new technology is to explain what EMD is not. Listed are those statements that help explain the basic concept of EMD within corrections:

1. Electronic monitoring should not be construed as a . . . "substitute or replacement of the duties and

responsibilities of the field parole officer. Rather, the technology can and should be used to enhance effective monitoring (of offenders)."[19]

2. Electronic monitoring is not designed to alleviate prison overcrowding, but rather as an alternative to institutional incarceration. [20]
3. Electronic monitoring does not eavesdrop within the offender's home. Rather, the technology is designed to determine whether the offender has left his home, and alerts authorities when he returns.
4. On most of the current EMD Hardware, the offender cannot remove the anklet or bracelet without electronically alerting the authorities. The device will either provide a tell-tale alarm, immediately alerting the authorities, or will show signs of tampering when the authorities inspect the bracelet.

As more agencies look into the use of EMD, more companies are involved in producing these devices. Currently, the following companies are producing different types of EMD. They are Advanced Signal Concepts, Contrac, Control Data Corporation, Computrac, Correctional Services Inc., Cost Effective Monitoring Systems, Life Sciences Research Group, Inc., Controlec Inc., Digital Services Inc., and Voxtron.[21]

Most of these companies follow similar theories of operation. Individual differences exist and can be attrib-

uted to design criteria which differ for each firm because of research and development approaches to the problem, and individual contract specifications.

Four common technologies are being used by most of these companies. As described in an article authored by Charles Freil and Joseph Vaughn, one of the technologies is explained:

> One form of the technology which is offered by several companies requires the probationer to wear a small transmitter. The transmitter emits a radio signal which is picked up by a receiver dialer attached to the probationer's telephone. During curfew hours, the receiver automatically dials the monitoring computer to advise whether it is receiving a signal from a transmitter. If so, the computer assumes that the probationer is at home. If not, the computer registers a potential curfew violation and notifies the person monitoring the system.[22]

Freil and Vaughn identify the second technology:

> Another version. . . uses a wrist band instead of a transmitter. In this case, a computer dials the probationer's home during curfew hours, the probationer is asked to identify himself, insert an identification bracelet worn on the wrist into a receiver back to the computer. If the telephone is not answered, or the bracelet is not inserted into the receiver, the computer notes the potential violation.[23]

A third type of technology is described by Annesley K. Schmidt, Research Analyst at the National Institute of Justice:

> A transmitter is strapped to the offender which sends out a constant signal. A portable receiver, in the car of the officer who is monitoring the offender, is tuned to receive the signal from the specific transmitter when

the officer drives within one block of the offender's home.[24]

A fourth kind of technology employs a link that is a small transmitter worn by the offender. A locater unit that is stationed at the offender's home receives a signal from the link when the offender is within 200 feet of his home. The locater unit then relays the information by regular or cellular telephone to the local area monitor. The local area monitor, a microcomputer that acts as an information processing system, receives and stores information from the offender. This information is then available for review by the Probation Officer or monitoring official. Each local area monitor can supervise up to 20 people.[25] The information, contained within the local area monitor, can be examined by the authorities responsible for overseeing the offender.[26]

With 20 states operating some form of program involving the use of EMD, many of the municipalities are putting this new tool to use in different correctional settings. Each municipality has adopted EMD into one or several settings of the criminal justice field. Dr. Bonnie Berry categorize these settings into six groups:[27]

1. Probation
2. Pre-trial release
3. Work release
4. Early release
5. Temporary release

6. Incarcerated persons: Inmates and officers (EMD employed on selected inmates and officers within the jail or prison as a means to keep track of their movements, from the safety or security standpoint.)

A seventh category includes the home confinement setting. This setting is becoming more popular as the public accepts this intermediate punishment as its use grows more commonplace. Blomberg, Waldo, and Burcroff noted that:

> All of these programs require that offenders placed on home confinement be thoroughly screened, and participation is reported to be voluntary. "Voluntary" participation is aimed, in part, at alleviating constitutional issues or conflicts. Generally, offenders on electronically monitored home confinement program are assigned to officers who set the rules and guidelines for the offender (and his or her family) to follow. At any time throughout the confinement process the offender may elect to quit the program and go to jail or prison for a prescribed amount of time.[28]

The unusually large numbers of municipalities phasing in electronic monitoring programs within the last few years can be attributed to several key environmental factors. It was necessary for these factors to be present at the same time in order for electronic monitoring to become a reality. Although experimentation with rudimentary monitors was being conducted in the early 1960's, a wide "environmental" chasm separated the theoretical use of EM from its practical application. Even if the concept of home confinement or intensive supervision probation had been part of the corrections system

in the 1960's, other factors would not have allowed electronic monitoring to gain a foothold within the field of corrections.

Environmental Factors

An examination of the problem reveals three different interrelated environments necessary for a workable interface of EM with corrections. Those environments are:

1. Social Environment
2. Economic Environment
3. Technological Environment

Within the social environment, the growth of intermediate punishments, such as intensive probation supervision and home confinement, has created a need for improved efficiency in the monitoring of offenders by officials representing the system. More importantly, the public has placed itself into a double-bind, because the movement toward more punitive criminal sanctions has been somewhat of a "voter's-vacuum" to support growing jail and prison populations.[29] With reluctance, the public has forced itself to allow intermediate punishment to proliferate, in the hope that it might take some of the pressure off of the jails and prisons. This environment, although somewhat "strained", has allowed the introduction of EMD as a new tool to aid officials whose responsibility it is to see that these programs work. Since intermediate punishment is now an option, there is a fear

that those offenders participating in intermediate punishment programs may have more of an opportunity to threaten public safety. In a 1986 Journal article, R. K. Gable noted:

> Unlike many parole and probation conditions that are good in theory but difficult to enforce in practice because of large case-loads, compliance with [electronic monitoring] could be readily ascertained and restrictions increased or decreased consonant with the needs of public safety and offender rehabilitation.[30]

The introduction of a device that might be a more efficient way to check on offenders' whereabouts becomes more acceptable by the public, even though this efficiency has yet to be proven. Freil and Vaughn point to another important consideration regarding the public safety aspect:

> . . . The use of electronic monitoring may help to enhance the public safety image of the department. Such a benefit is worth considering, since community acceptance of the legitimacy of probation is likely to increase its efficacy.[31]

In part, this social environment has aided the proliferation of intermediate punishments, allowing the introduction of electronic monitoring.

Within the economic environment, the immediate savings are noted in the use of intermediate punishments. Initial examination suggests it is far cheaper to use intermediate punishment than to confine the offender. But "additional" costs can be identified within probation and home confinement programs. Those costs include the additional crimes that some offenders will commit, when conditionally released. closely liked with the social environment, the economic envi-

ronment, as described, helps justify the use of more efficient means to "check" these offenders who may opt to try to take advantage of a conditional release program.

The technological environment that has continued to advance has been a perfect medium for the supporting hardware and software needed for a practical electronic monitoring program. This environment is ideal for the production of cost-effective compact devices, with parent systems now capable of handling large amounts of data. The newer computer systems, earlier unavailable, can now be employed as a powerful information management tool at a comparatively low cost. Advanced for its time, the two pound transceiver that was being tested at Cambridge is now considered archaic by today's standards. With the invention of integrated circuitry, the transistors and other components used within the transceiver at Cambridge could be down-sized even further. Additionally, the invention of the microprocessor by Ted Hoff in the early 1970's at Entel Corp., brought closer the reality of practical electronic monitoring information management systems.[32] The relatively recent growth of the technological environment was essential for the birth of a workable EMD system.

In conclusion, an historical perspective of electronic monitoring shows electronic monitoring, as a working tool, being in existence for an extremely short period. Any new, quickly expanding program has the potential of developing serious problems if implemented without careful planning. In

some cases, testing the system in an operational setting may be the only way to insure that all dimensions of the program can be understood. It has been noted that within the available criminal justice literature on the subject of electronic monitoring, issues and controversies are numerous. Chapter three will examine these areas of concern.

CHAPTER TWO

NOTES

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CHAPTER THREE

REVIEW OF THE LITERATURE: ISSUES AND CONTROVERSIES SURROUNDING ELECTRONIC MONITORING AS A TOOL WITHIN THE CORRECTIONS SETTING

This chapter will examine the current literature on the subject of electronic monitoring, and explore issues and controversies that have arisen within this short times period. Although electronic monitoring began in the 1980's, its employment within this short time frame has exposed varying issues and controversies. An examination of the issues and controversies will identify those authors who have contributed to this emerging field.

A literature search focusing on the electronic monitoring phenomenon reveals the following authors as representative of those concerned with this subject: Schmidt, Berry, Freil, Vaughn and Carmen. R. K. Schwitzgebel, (now R. K. Gable), whose work in the 1960's touched on the hypothetical use of EMD within a corrections environment, broke new ground in his writings. He was the pioneer who first recognized the value of electronic monitoring as a corrections tool. Although his predictions were not totally accurate, much of what he said helped stage an interesting forum for a yet-to-be-developed technology. The other authors have written about EMD after it became a form of crime control within several municipalities. Since EMD could now be viewed as a working concept, their perspectives have provided a more ac-

curate accounting of issues and controversies that have arisen. However, Gable's early "look into the future" was the very first attempt in interfacing EMD with corrections, even though this interface was on a hypothetical basis.

Annesley K. Schmidt, research analyst for the National Institute of Justice, has published numerous articles on the subject of electronic monitoring. Through this medium, the National Institute of Justice has helped "spread the word", in part, to municipalities, by publishing these articles in Federal Probation, NIJ Reports, and other publications. Additionally, the NIJ is presently supporting several research projects throughout the country in which performance and operational effectiveness of electronic monitoring equipment will be measured.[1]

Other literature which covers the subject of electronic monitoring within corrections originate from three different sources. The first source is the "single study" group. Much of what is published on electronic monitoring is an examination of a single municipality's experience in running a local corrections program that has implemented EMD. All of these "single studies" currently published can not be considered a reporting of a "classical" experimental study. Rather, these studies are an examination of organizational successes, failures, and commentary regarding these individual programs.

The second source from which EMD literature emerges is from a "reportive" standpoint. Historical information is generally given within these articles, as a means to inform

those people who may be currently unaware of this new corrections tool.

Legal issues have been the impetus for the publication of several articles, and can be considered the third source from which EMD literature emerges. Rolando V. Del Carmen and Joseph P. Vaughn have explored the legal and constitutional issues of this new technology, and their observations parallel earlier writings by Dr. Schwitzgebel.

A closer examination of the available literature reveals important issues and controversies that are currently the subject of debate. As of this writing, valid experimental studies are being sponsored by the National Institute of Justice, since a large void exists in the examination of EMD under controlled conditions. This void exists because of the sheer "newness" of the program.

Issues And Controversies

Within this chapter, issues and controversies are grouped into three categories. The first category examines operational questions within electronic monitoring's working environment. The second category covers any constitutional and legal issues. The third category covers philosophical issues on EMD's employment within corrections.

Operational Issues

As the first category, operational questions have arisen regarding the introduction of EMD into many different types

of corrections programs. These issues reappear in many of the current articles written about this new corrections tool. These questions are:

1. Can electronic monitoring help reduce prison overcrowding?
2. How long can offenders be expected to stay on the program?
3. What type of EMD hardware should be chosen for the different types of corrections programs?
4. What are the costs in running these types of programs?
5. What are some of the administrative considerations in the implementation of a program involving the use of electronic monitoring?
6. How much media exposure should be given to a recently implemented corrections program in which electronic monitoring devices are being utilized?

The first question, involving the effect that EMD may reduce prison and jail populations has been used by some legislators as a way to convince taxpayers to finance charter programs involving the employment of EMD. In 1986, State Senator Ruben Ayala introduced Senate Bill 2469 into California's legislature in an attempt to start a pilot electronic monitoring program within his county.[2] The legislative intent was aimed at helping reduce a continuing jail and

prison overcrowding situation existing within the state of California.[3] The bill was eventually signed into law. The chapterized document ended with the statement..."In order to relieve overcrowding in jails in those counties effected by this act at the earliest possible time, it is essential that this act take effect immediately."[4] Although there is a push to introduce these systems as a means to deflate county jail and state prison populations, critics feel that EMD will have little or no effect on relieving the numbers of inmates within jails and prisons. Freil and Vaughn state:

> [Critics suggest]...that even if offenders were diverted from existing institutions, thereby making bedspace available, the beds would be filled anyway. The result would not be a reduction in operating costs; on the contrary, it would simply increase overall public expenditures by the cost associated with the purchase of the technology. This school of thought reflects the belief that incarceration rates are determined by available bedspace.[5]

Schmidt states:

> Can electronic monitors solve or alleviate prison and jail crowding? The answer to this question is probably "no" for a variety of reasons. First, in addition to issues related to what a community can, will, and should be expected to tolerate, it should be reiterated that monitors are technological devices potentially useful in a variety of program contexts. The population selected as the focus for monitoring programs may or may not be one that might otherwise be sent to jail or prison if monitors were not available. Second, consideration should be given on the likely impact on the total problem. In a thousand-man jail, the release of 20 monitored inmates would reduce the population only 2 percent.[6]

Whether the use of electronic monitoring would have a real effect on jail and prison overcrowding appears doubtful. Programs such as those being followed by NIJ may eventually lead to concrete data that may support or refute this issue.

Data is also currently lacking on the length of time an offender should be placed in an electronic monitoring program. Freil and Vaughn help bring this issue into perspective by explaining that being on an EMD for one or two months would not be unreasonable, but five to eight years certainly would not be practical [7] They also explain that someone who has to be placed on an extended EMD program shouldn't be in the community in the first place.[8] Additionally, Freil and Vaughn conclude:

> One of the justifications for community supervision is the rehabilitation and reintegration of the offender into the community, then long-term residential surveillance which separates the offender from the community is antithetical. The third guideline might be cost. Although the technology is cheaper than institutionalization, it is expensive relative to other forms of supervision.[9]

Freil and Vaughn suggest that each user..."will have to develop a duration policy incrementally."[10]

Schmidt reports that in Palm Beach County, Florida, officials use a one-day-in-jail equals three-days-on-the-monitor formula in sentencing offenders convicted a second time for driving while intoxicated.[11] Within this same jurisdiction, time on the monitor for other offenses are not as easily formulated, as the period of time appropriate to the of-

fense could fall within a non-specific range.[12]

To find an ideal sentencing scheme for offenders can become as difficult as deciding what kind of EMD hardware to procure for the agency wishing to start an EMD program. The equipment choice can become a perplexing issue for the newcomers using this technology. This operational issue becomes even more complex as the number of companies that produce EMD increases. Freil and Vaughn lay out considerations that should be taken into account prior to the purchase of EMD hardware.[13] Although not a complete list, these considerations should be examined and weighed prior to the acquisition of any electronic monitoring equipment.

1. In a system requiring the offender to wear a transmitter, consider whether anklets, bracelets or transmitter necklaces should be purchased. If the offender has a job that requires him or her to work around dangerous machinery, wristlets would have to be taken off to comply with company or shop safety regulations. If a woman is on the program, remember that she would have to resort in wearing slacks all of the time if an ankle transmitter is to be worn.
2. Consider whether a tamperproof bracelet should be a specification in the program. Normally tamperproof bracelets are more costly, and also will usually have to be cut or destroyed at the end of the offender's sentence, adding to the cost of mainte-

nance. This kind of arrangement is usually geared for offenders who might be participating in a longer program.

3. Consideration should be made concerning the monitor's power source. If the receiver-dialer does not have a back-up power supply, constant power outages could become a serious nuisance. Likewise, if the phone lines in the area of use are unreliable, system false alarms can be a serious problem.
4. Take under consideration whether the device might become inoperative if someone inside the offender's house is "tying up" the telephone.
5. Consider whether portions of the offender's dwelling may cause transmitter-receiver problems. Large metal objects within the house may cause "intermittents" interrupting signals going from the transmitter to the receiver dialer. Checking to see if the manufacturer has field tested the devices under normal living conditions may help to determine whether the devices are suited for particular types of users.

Although these considerations may have been a problem with certain monitors within the last year, Schmidt states:

> It should be noted that the comments are preliminary and often reflect results of testing of what is now the previous generation of equipment, the technology itself is developing so rapidly.[14]

Manufacturers are usually interested in any problems that may develop within their equipment. Usually, these problems remain unforeseen until the equipment is operating under "field" conditions. Although not always true, it is usually within their best interest to remedy in-field problems with modifications and redesign. Until more hours are accumulated on these devices, operational problems will continue to surface.

As EMD equipment is chosen, one of the most important issues facing the proposed user is a question of cost. In order to justify an outlay of expenditures, the question arises whether EMD is truly cost-effective. Vaughn notes:

> A preliminary analysis of the data supplied by the vendors and agency representatives indicates the technology offers the potential for a reduction of corrections costs. Estimates of cost reduction for an individual offender run from $18.96 to $46.96 per day for some programs. Other programs may experience an increased cost from $2.04 to $9.04 per day. The divergence in projected costs results from several factors: The variety of funding schemes available for purchase or lease of equipment, the number and types of offenders placed on the program, and the current costs to an agency for supervision or incarceration.[15]

Again, the difficulty in attempting to determine costs center around the fact that limited data exists which would help in determining cost-benefits with already-established EMD programs. In a survey conducted by Freil and Vaughn, the majority of administrators indicated electronic monitoring programs should be used on offenders whom would otherwise be sentenced to jail or prison.[16] With this rationale in mind,

significant savings could be realized. Typical of many municipalities, the cost of housing a prisoner in an older facility in Shasta County, California, has been $23.75 a day, and in a newly built facility within the same county, the cost of housing has increased to $53.22.[17] The cost of maintaining an offender on an electronic monitoring system could be up to $15.00 or more.[18] As a direct comparison, cost savings of electronic monitoring does appear to be significant. However, from another standpoint, costs may be viewed as a give-and-take phenomenon that may make little difference. Vaughn states:

> From the agency administrator's point of view, the technology may not be cost-beneficial. Relatively speaking, public expenditures for the administration of justice are a *zero-sum game*. *Funds expended for one purpose* are no longer available for another. Administrators need to properly assess the priority to be attached to the acquisition of the technology relative to other departmental needs.[19]

Another issue regarding questioning cost-benefits of the employment of electronic monitoring are explored by Freil and Vaughn. They point out that if those offenders who would normally be placed in jail or prison are placed on an electronic monitoring program, this group of people may represent a high-risk group.[20] Freil and Vaughn state:

> If recidivism is high, then the costs associated with incarceration have simply been forestalled, not eliminated. In fact, one could argue, depending upon the rate of recidivism and the effects of inflation on the future costs of incarceration, that the use of the technology to divert and forestall incarceration will result in higher net future costs than would the initial incar-

ceration of these offenders.[21]

Operating costs can be partially defrayed by charging the offenders a "users fee" during the period they have been placed on the electronic monitoring program. Schmidt reported. . . "The In-House Arrest Work Release Program of the Sheriffs Stockade in Palm Beach County Florida charges participants in the voluntary program $9.00 per day."[22] For those offenders who can pay this fee, a partial return can be realized. In the actual procurement of electronic monitoring hardware at a cost of $49,275, Palm Beach has seen a return of $42,885 in about two years.[23] Hardware accounts for only a portion of the cost of running an electronic monitoring program. The fact that offenders can be charged a fee for being placed on the program helps justify the initial expenditure for the acquisition of equipment.

Cost considerations can be exacerbated by the phenomenon known as "net-widening". The net-widening issue is explained as placing clients on electronic monitors who would normally be placed on regular probation supervision. Freil and Vaughn capsulize this problem with two criticisms:

> The first criticism refers to the argument that people who would ordinarily not become part of the criminal justice system are included when these community alternatives are available. There is some indication that this may have occurred already. Although the monitor has as one of its stated purposes the reduction of incarcerated offenders, it is used for offenders who, in fact would probably not be incarcerated.[24]

Freil and Vaughn's second criticism is that the . . . "intrusiveness of the state's intervention will be larger than expected because of the discretionary use of the programs, the severity of the penalty imposed, and the use of formal intervention when informal intervention would have sufficed."[25] Net widening can eventually negate any of the initial "savings" earlier computated when the program starts pulling people in who would normally be part of a probation program.

Assigning an EMD program to the responsible agency is the next consideration that is made in the implementation of new programs. This administrative consideration is based on what particular stage of the corrections process the offender has entered. Bonnie Berry identifies the first of three areas of corrections that could be made responsible in running an EMD program. She notes:

> If we monitor offenders thought to be dangerous by virtue of present and past offending behavior and who have received a prison sentence, we could use monitored release in the form of temporary or pre-release from prison. Since these offenders would come from a prison facility, the electronic monitoring should be administered by the state department of corrections.[26]

Berry identifies the second area:

> If we use electronic monitoring as the sentence itself, in place of incarceration, we may refer to the probation department.[27]

She makes clear the fact that probationers are not the

target of electronic monitoring. However, since monitored offenders are released into a community environment under pre-specified conditions, they share a common situation that could be best monitored by probation officers.[28] The third administrator Berry identifies is the city or county jail:

> "If we electronically survey pre-trial releasees (would-be detainees), we may proceed through the city or county jail, which already presides over pre-trial detained populations. In addition, the jail would be best able to handle violations of release conditions."[29]

Prior to the introduction of an electronic monitoring program into the community, an issue that may become vitally important is its initial acceptance into the community and this requires a positive publicity campaign. Media exposure is an issue that shouldn't be neglected. Freil and Vaughn, and others point to the possibility that public reaction may be adverse because of the "Orwellian invasion of privacy."[30] Whether this feeling will be a critical concern, depends on the individual community.[31] Freil and Vaughn note:

> In one community it may be wise to seek media exposure for the program, since such publicity may foster better community relations and a better sense of public safety. On the other hand, the department may want to keep a low profile, lest offenders be stigmatized by wearing an electronic device. Judges, prosecutors,and other members of the criminal justice community should be consulted during the planning phase on how best to handle media relations when the technology is implemented.[32]

Constitutional and Legal Issues

Much controversy has arisen within the first category of issues, the operational questions. The second category, le-

gal and constitutional issues, contain an equal amount of controversy within the realm of electronic monitoring.

As covered in Chapter two of this thesis, R. K. Schwitzgebel examined EMD from a legal and social viewpoint. But what makes the early writings on the hypothetical use of electronic monitoring particularly significant was a legal evaluation of a then "corrections tool of the future." Schwitzgebel was able to lay out a scenario that in some ways, closely parallels many of the same legal and constitutional questions that have been asked recently about EMD's employment. Although the early writings were structured around a then-popular rehabilitation scenario, with no reference to citizen safety, its prophesy is noted in the application of the EMD concept to corrections, and EMD's adaptability within the legal system. Within the context of the 1966 time period in which the Harvard Law Review article appeared, what might have been considered a controversial or unlikely concept at that time has proven to become a reality. Questions involving threat-to-privacy and possible conflicts with the fourth, fifth and fourteenth amendments were some of the legal questions that Schwitzgebel considered.[33]

Although electronic monitoring has been a working tool within corrections for a very short time, many legal and constitutional questions that electronic monitoring has brought to issue have been tested prior to its inception. A complementary technology, electronic surveillance, has been in use since the early part of this century, and these two technolo-

gies have much of the same type of legal and constitutional problems, if not appropriately employed:

> Supervision of probationers requires a varying degree of surveillance by probation officers. The use of house arrest and monitoring devices to supervise clients must comply with the fourth amendment which prohibits unreasonable search and seizures. That amendment provides the foundation for cases decided by the United States Supreme Court which involve the use of electronic surveillance.[34]

Carmen and Vaughn address the possible problems and obstacles that could become a barrier in the employment of electronic monitoring.[35] They set out to ask and answer the following questions:

1. Will EMD's use comply with the fourth amendment, which prohibits unreasonable search and seizures?

Response: "The use of electronic monitoring, which merely indicates whether a person is complying with his curfew restriction, would not constitute a search. . . "[36] and that ". . . the device does not reveal information that could not have been obtained through visual surveillance."[37]

2. Does the right to privacy pose a problem with offenders who may be on an electronic monitoring program?

Response: Courts have upheld that probationers have a limited expectation of privacy.[38]

3. Could electronic monitoring be considered "cruel and unusual punishment"?

Response: Electronic monitoring, when used properly, shouldn't humiliate or "degrade" the offender.[39]

4. Under the protection clause of the fourteenth amendment, does the offender who is participating in an electronic monitoring program, who can't pay a daily fee for the device lose his protection guaranteed under the 14th amendment?

Response: Indigent persons who qualify to be placed on an electronic monitoring program should have any "fee" paid for by the state.[40]

5. Is an offender placed on a monitoring program subject to warrantless searches?

Response: As a condition of probation, it's not unreasonable for a probationer to be subject to warrantless searches as a condition to his probation.[41]

6. In the event an offender is found violating his curfew while being monitored electronically, is this a violation of his fifth amendment right against self-incrimination?

Response: If the electronically collected evidence were to be used to revoke the offender from the monitoring program, this constitutional guarantee does not apply. But if it were to be used in a criminal trial, it could apply.[42]

7. Is it reasonable to severely limit the offender's

freedom of movement by imposing strict curfews?
Response: As long as the curfew is related to rehabilitation, and that the offender agrees to the terms, imposing curfews is not into itself unreasonable.[43]

8. Is it unlawful to make the offender waive some of his rights?

Response: If the offender finds that he is unduly burdened by certain actions that will limit some of his rights, then he can choose to forfeit his probation and return to incarceration.[44]

Testing electro..ic monitoring within the United States courts has not been the focus of any study. Again, the problem with such research rests in the fact that very little activity involving electronic monitoring and the courts have occurred. However, much of the constitutional and legal precedence has occurred in its sister technology, electronic surveillance. Although much support can be established in the employment of electronic monitoring, time will be needed before the full legal impact of this new technology can be placed into better perspective.

With few exceptions, all of the authors concluded that electronic monitoring can work within a practical and legal framework. Established guidelines should be focused on insuring that system management be sensitive to those constitutional and legal issues that may become a problem if ignored.

Optimism, (sometimes guarded) appears in most of the literature about electronic monitoring. Contrasting what others have said about EMD, Ari Korpivaara, acting Public Information Director of the American Civil Liberties Union expresses concern that strict guidelines should be established into law before electronic monitoring is used. He recommends putting a moratorium into effect until a set of national standards, that will define and restrict electronic monitoring's use, are firmly established.[45] Other authors indicate that enough of the legal framework, already in place regarding electronic surveillance and other related legal precedence, will cover possible abuses that might occur in an EMD environment. Korpivaara's opinion is that specific laws regarding EMD should be in-place as a more efficient safeguard to adequately protect the legal rights of the offender.

Philosophical Issues

As the third category, philosophical issues have been examined through Schwitzgebel's early writings on the hypothetical use of electronic monitoring within corrections. Since certain hardware options explored within Schwitzgebel's articles are not part of the current electronic monitoring operating system, an examination of his findings will not be relevant. However, new concerns should not be overlooked in consideration of the implementation of this new technology. Philosophic concerns have arisen within the ranks of the pro-

bation administrator. Freil and Vaughn find three different attitudes with probation administrators.[46] The first group of administrators felt that times and technology are bound to change, but were unsure whether electronic monitoring should be incorporated with probation.[47] Other administrators thought that probation and surveillance are closely interrelated, and that this group would more readily accept electronic monitoring within their programs.[48] The third group thought that the imposition of electronic monitoring represents a "betrayal of trust" and felt that this imposition would break down the trust between the probation officer and his client.[49] These philosophies should be considered in the early stages of program initiation within an organization. It is critical to assess the philosophical viewpoints of significant actors in the organization in order to assure a successful introduction of this new technology into the correctional agency.

CHAPTER THREE

NOTES

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CHAPTER FOUR

Conclusions and Recommendations

Jail and Prison overcrowding is now a serious issue within the criminal justice arena, therefore, there is no doubt that alternatives in the form of intermediate punishments will continue to grow in popularity within the United States. Because of this crisis, intermediate punishments which incorporate the use of electronic monitoring, will probably become a permanent fixture within corrections. One of the major problems advocates of electronic monitoring have to understand is that there is no guarantee that electronic monitoring will ameliorate jail and prison overcrowding. Although most authors who have written about EMD fear that "net widening" may occur when EMD is interfaced with intermediate punishments, only a few hypothesize that the introduction of electronic monitoring will not alleviate prison and jail overcrowding.

If the introduction of EMD allows for a more efficient monitoring of diverse offender client populations, EMD as a tool could be employed to help facilitate probation and home incarceration as effective social control measures. In fact, the efficiency of electronic monitoring may actually contribute to an expansion of prison and jail populations, since probation or parole violations by offenders could be detected more easily. The numbers of "failures" to various intermediate punishment programs might rise because of this effi-

ciency. Failures probably would be funnelled back into incarceration, increasing the numbers of persons normally jailed.

Though it has not been proven that EMD may reduce the jail and prison population explosion, its popularity has grown at an unprecedented rate. Electronic monitoring devices have now become an available technological tool in many municipalities. Hardware alone does not "create" an effective intermediate punishment program, rather, it is designed to "enhance" the program. A potential shortcoming for departments who might acquire this hardware is to buy the equipment before creating the program. The hardware does not shape the program. . . the program should be the primary focus of the department, and the equipment should be employed to enhance this program.

Will those people targeted by this new technology ultimately benefit by it? Will the technology enhance the efficiency of the criminal justice system in its administration of justice? Time will determine the outcome of these questions, but conclusions can be drawn by examination of the current status of this new technology. The use of electronic monitoring does appear to provide greater cohesion to a system employing "other-than-incarceration" programs. Since home incarceration and intensive supervision programs are becoming more common technology that can monitor offender curfews will become more desirable. Additionally, probation officers who had in the past spent many hours on the tele-

phone checking on the whereabouts of their clients, now could utilize a tool that could reduce the extensive time devoted to this particular task. Noting its incredible growth with the establishment of numerous programs throughout the United States, it appears as if electronic monitoring will continue to complement alternative punishment programs, and its growth will continue as more municipalities adopt programs that are electronic monitoring-compatible.

Within the next few years, electronic monitoring will be subject to rigorous evaluation in order to determine the benefits and limitations which exist when it is used as a primary client supervisory tool within a correctional agency setting. Research and studies by the National Institute of Justice will help solve some of the arguments now being made that may either support or refute the implementation of this new tool.

However, while agency administrators await the answers to these questions, there will be many new programs continuing to be implemented before some of these important questions can be answered. Undoubtedly, there will be a number of failures associated with current and future programs involving the use of electronic monitoring. This is one of the risks of being an innovator with any charter program. Whether the risk is from technological failure or administrative ineffectiveness, those people who decide to utilize or experiment with electronic monitoring can be better armed by being familiar with the issues, controversies, and legal im-

plications of the application of this new tool. Although it is impossible to guarantee success, those people who understand the potential associated with new program will be more effective when coping with initial problems; therefore, increasing their opportunity of ultimately succeeding in implementing a form of social control which endeavors to provide correctional client supervision in a new context.

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